## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Kohn, et al.

Serial No.

08/225,478

Filed:

April 8, 1994

For

Gene Therapy by Administration of Genetically Engineered CD34+ Cells Obtained from Cord Blood

Group

1804

Examiner

Milne

Assistant Commissioner of Patents Washington, D.C. 20231

## <u>AMENDMENT</u>

Sir:

In response to the Office Action dated October 19, 1995, kindly amend the above-identified application as follows:

## IN THE CLAIMS:

1. (Amended) A method of providing a therapeutic effect in a human patient, comprising:

administering [to said patient] <u>autologous</u> CD34+ cells obtained from cord blood

to said patient, said <u>autologous</u> CD34+ cells having been genetically engineered to include at least
one nucleic acid sequence encoding a therapeutic agent, [thereby] <u>said autologous CD34+ cells</u>

being administered in an amount effective to provide said patient with <u>an effective amount of</u> said
therapeutic agent by expression of said nucleic acid sequence in said patient.

6. (Amended) A method of treating a human patient suffering from severe combined immune deficiency resulting from adenosine deaminase deficiency, comprising:

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administering [to said patient] <u>autologous</u> CD34+ cells obtained from cord blood <u>to said patient</u>, said <u>autologous</u> CD34+ cells having been genetically engineered to include a nucleic acid sequence encoding adenosine deaminase, said <u>autologous</u> CD34+ cells being administered to said patient in an amount effective to treat said <u>severe combined immune</u> <u>deficiency resulting from</u> adenosine deaminase deficiency in said patient by providing said patient